Unit 5
Day 5
Factoring Using Real Numbers

1)

$$\frac{1}{9}a^2 - \frac{1}{16} =$$

$\left(\frac{1}{3}a - \frac{1}{4}\right)\left(\frac{1}{3}a + \frac{1}{4}\right)$

$2\left(\frac{1}{2}\cdot\frac{2}{5}\right)$

$2\cdot\frac{1}{5}$

$\frac{2}{5}$

2)

$$\frac{1}{4}x^2 + \frac{2}{5}x + \frac{4}{25} =$$

$\left(\frac{1}{2}x + \frac{2}{5}\right)^2$

3)

$9m^2 - 8 =$ $(3m + \sqrt{8})(3m - \sqrt{8})$

$(3m + 2\sqrt{2})(3m - 2\sqrt{2})$

4)

$$\frac{3}{2}y^2+\frac{10}{3}y+\frac{2}{3}=$$

$\frac{1}{6}(9y^2+20y+4)$

$\frac{1}{6}(y+2)(9y+2)$

9.4

$\frac{36}{20}$

18 2

$\frac{1}{6}\cdot ?=\frac{3}{2}$

$\frac{3}{2}\cdot 6$

$\frac{10}{3}\div\frac{1}{6}=\frac{10}{3}\cdot 6=20$

$\frac{2}{3}\cdot\frac{1}{6}=\frac{2}{3}\cdot 6=4$

5)

$$18x^2 - 1 = (x\sqrt{18} + 1)(x\sqrt{18} - 1)$$

$$(3x\sqrt{2} + 1)(3x\sqrt{2} - 1)$$

6) $15x^{\frac{4}{3}} + 2x^{\frac{1}{3}} =$ $x^{1/3}(15x + 2)$

7)

$$18a^{-5} + 6a^{-3} = 6a^{-5}(3 + a^2)$$

$$\frac{6(3+a^2)}{a^5}$$

(80) $(q^2+6q+9)-p^2$

$(q+3)^2-p^2$

$(q+3+p)(q+3-p)$

$(q^2+6q)+(9-p^2)$

$q(q+6)+(3-p)(3+p)$

8)

$$2n^{\frac{1}{2}} + 10n^{-\frac{1}{2}} + 12n^{-\frac{3}{2}} =$$

$$2n^{1/2} + 10n^{-1/2} + 12n^{-3/2}$$

$$2n^{-3/2}(n^2 + 5n + 6)$$

$$2n^{-3/2}(n+3)(n+2)$$

HOMEWORK

WORKSHEET #4 1-6 (top)

Day 5 and 6 WORKSHEET 57-68 (all)

pg. 62: 69-76 (all)